

S/N 09/905,189
Amendment dated Oct. 8, 2004
Reply to Office Action of June 10, 2004

REMARKS

Applicants have received and reviewed the Office Action dated June 10, 2004. In response, Applicants have amended claims 1-4, 8, 24, 31-33 and 47 and canceled claims 9 and 23. No new matter is presented. Claims 1-8, 11-12, 15-20, 24-33 and 35-47 are pending.

The independent claims, claims 1, 24, 33 and 47 have been amended to more precisely define the composition based on its ingredients and its antimicrobial activity. In particular, the claims have been amended to clarify that the composition comprises about 0.01 to about 2 wt-% mono-or-diester dicarboxylate and about 0.01 to about 10 wt-% hydrogen peroxide, and that the composition exhibits antimicrobial activity of at least 1 log 10 reduction against various microbes.

35 U.S.C. 102 (b) Rejections

Claims 1-9, 11-12, 17-20, 23-31, 33, 35 and 42-46 were rejected as anticipated by Carr et al. (WO 98/28267) for the reasons in the Office Actions dated March 26, 2003 and November 4, 2003, and for additional reasons. Applicants disagree.

The independent claims, claims 1, 24 and 33 have been amended to more precisely define the *in situ* composition, particularly, as including about 0.01 to about 2 wt-% mono-or-diester dicarboxylate and other ingredients. The claims also recite that the composition exhibits antimicrobial activity of greater than 1 log₁₀ reduction against recited microbes under specific conditions.

These claims differ from the disclosure of Carr et al., for example, due to the level of diester carboxylate. Carr et al. teaches compositions comprising 2 to 30 wt-% hydrogen peroxide, 5 to 90 wt-% water, and 3 to 90 wt-% aliphatic diester. At least for this reason, Carr et al. does not anticipate the claims, as amended.

The pending claims also differ from the disclosure of Carr et al., for example, due to the antimicrobial activity of the composition. The composition of Carr et al. is commercially available from Solvay Corp. under the trade designation "Perestane". As indicated in Table 1 of the present application, Perestane does not provide greater than 1 log 10 reduction of specific microbes, as required by the pending claims. As seen in Table 1, Perestane merely provides a

S/N 09/905,189

Amendment dated Oct. 8, 2004

Reply to Office Action of June 10, 2004

0.2 log 10 reduction. Again, at least for this reason, Carr et al. does not anticipate the claims, as amended.

At least for these reasons, claims 1-9, 11-12, 17-20, 23-31, 33, 35 and 42-46 are not anticipated by Carr et al. and withdrawal of the rejection is requested.

35 U.S.C. 103 (a) Rejections

Claims 1-9, 11-12, 15-21, 23-33, 35-47 were rejected as unpatentable over Carr et al. in view of Hei (U.S. Patent No. 6,024,986), Chemical Abstracts 134:97683, and Richter et al. (WO 00/30690). Applicants disagree.

As discussed above, claims 1, 24 and 33, and claim 47, have been amended to more precisely define the composition as including about 0.01 to about 2 wt-% mono-or-diester dicarboxylate and other ingredients, and that the composition exhibits antimicrobial activity of greater than 1 log₁₀ reduction against recited microbes under specific conditions.

The teachings of Carr et al., and how the pending claims differ, were also discussed above. Carr et al. teaches using levels of 3 to 90 wt-% diesters, whereas the present claims are now directed to much lower levels, that of about 0.01 to about 2 wt-%. Applicants of the currently application desire lower levels of mono-or-diester dicarboxylate, due to the intended use of the composition, the industries of food, beverage and pharmaceutical processing. Applicants found that with higher levels, there is a tendency for an aromatic residue to remain on the food, beverage or pharmaceutical item. It would not have been obvious to use such a low level of material, about 0.01 to about 2 wt-%, when Carr et al. teaches using 3 to 90 wt-%.

The references to Hei, Chemical Abstracts and Richter et al. do not remedy the deficiencies of Carr et al., at least that of the low levels of mono-or-diester dicarboxylate. These three references merely provide basic information regarding the use of peroxyacids and peracetic acid.

At least for these reasons, claims 1-9, 11-12, 15-21, 23-33, 35-47 are patentable over Carr et al. in view of Hei, Chemical Abstracts, and Richter et al., and withdrawal of the rejection is requested.

S/N 09/905,189

Amendment dated Oct. 8, 2004

Reply to Office Action of June 10, 2004


SUMMARY

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: October 8, 2004


Mara E. Liepa
Reg. No. 40,066

